REMARKS/ARGUMENTS

Upon entry of the present Amendment, claims 1, 10, 11, 12, and 13 will have been amended. By the present Amendment and Remarks, Applicant respectfully submits that that the rejections have been overcome, and respectfully requests reconsideration of the July 11, 2006 Office Action and allowance of the present application at the Examiner's earliest convenience.

Pending Claims

Claims 1-13 are pending in the application. Of these claims, claims 1, 10, 11, 12, and 13 are independent claims and the remaining claims are dependent claims.

Summary of the Official Office Action

Summary of Objections

Claims 1, 10, 11, 12, and 13 were objected to as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, with regards to the amended part of the claims "wherein the positional information image can be arbitrarily be recorded on the recording medium", the use of the term "can" is open to interpretation, and thus indefinite.

Summary of Rejections

Claim 13 was rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. More specifically, it is directed to a computer

program lacking storage on a computer readable medium which enables any underlying functionality to occur.

Claims 1, 2 & 4-13 were rejected under 35 U.S.C. 102(b) as being anticipated in view of Silverbrook et al. (US PGPUB 2002/0080396).

Claim 3 was rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al. (US PGPUB 2002/0080396) in view of Tan et al. (US 6,613,403).

Response to Claim Objections

In response to the objection that claims 1, 10, 11, 12, and 13 are indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, in lieu of the present Amendments, Applicant believes the claims are in condition for allowance. As such, Applicant respectfully requests the objection to claims 1, 10, 11, 12, and 13 be withdrawn.

Traversal of Rejection under 35 U.S.C. 101

In lieu of the present Amendment, Applicant believes claim 13 is in condition for allowance. As such, Applicant respectfully requests the rejection to claim 13 be withdrawn.

Traversal of Rejection under 35 U.S.C. 102(b)

Applicant respectfully traverses the rejection of claims 1, 2, & 4-13 under 35 U.S.C. 102(b) as being anticipated in view of Silverbrook et al. (US PGPUB 2002/0080396) [hereinafter "Silverbrook"].

Turning to the specific claim language of the present application, amended independent claim 1 is directed to a recording apparatus for forming an image on a recording medium comprising a recording unit for performing recording by applying a recording material onto the recording medium, the recording unit recording the image and at least one of a positional information image representing positional information corresponding to the position, where the recording unit arbitrarily records the positional information image, and a control unit for controlling the recording such that the recording unit records the positional information image with a recording material capable of being detected by a predetermined detector and records the image with another recording material incapable of being detected by the detector.

The present invention of independent claim 1 describes recording, on a recording medium, positional information image data, where the positional information image data represents positional information corresponding to the position where the positional image data is recorded. In addition, the present invention of independent Claim 1 also describes that the positional information image is arbitrarily recorded on the recording medium.

Applicant respectfully submits that Silverbrook fails to disclose at least the above-noted features of the present invention.

Silverbrook is seen to describe a system for producing interface surfaces ("netpages") which allow users to interact with networked information and to obtain interactive printed matter. More specifically, a "netpage" consists of a printed page (or other surface region) invisibly tagged with references (i.e., tags) to an online description of the page. The tags may be printed on or into the surface of the page, may be in or on a sub-layer of the page or may be otherwise incorporated into the page. The online page

description is maintained persistently by a netpage page server. The page description describes the visible layout and content of the page, including text, graphics and images. It also describes the input elements on the page, including buttons, hyperlinks, and input fields. A netpage allows markings made with a netpage pen on its surface to be simultaneously captured and processed by the netpage system (paragraph 0148).

Tags are printed in infrared-absorptive ink on any substrate which is infrared-reflective, such as ordinary paper (paragraph 0151). A tag is sensed by an area image sensor in the netpage pen, decoded and the data encoded by the tag is transmitted to the netpage system, preferably via the nearest netpage printer. The pen recognizes the tag and extracts the page ID and position on every interaction with the page. (paragraph 0152).

According to Silverbrook, in the preferred form of the invention, each tag identifies the region in which it appears, and the location of that tag within the region. A tag may also contain flags which relate to the region as a whole or to the tag. One or more flag bits may, for example, signal a tag sensing device to provide feedback indicative of a function associated with the immediate area of the tag, without the sensing device having to refer to a description of the region. (paragraph 0155).

Decoding a tag results in a region ID, a tag ID, and a tag-relative pen transform. Before the tag ID and the tag-relative pen location can be translated into an absolute location within the tagged region, the location of the tag within the region must be known. This is given by a tag map, where each tag ID in a tagged region is mapped to a corresponding function. A tag map reflects the scheme used to tile the surface region with tags. The tag map for a region must be retrievable via the region ID. Thus, given a region ID, a tag ID, and a pen transform, the tag map can be retrieved, the tag ID can be translated into an absolute tag location within the region, and the tag-relative pen location

can be added to the tag location to yield an absolute pen location within the region (paragraphs 0193-0195).

A location-indicating tag contains a tag ID which, when translated through the tag map associated with the tagged region, yields a unique tag location with the region. The tag-relative position of the pen is added to this tag location to yield the location of the pen within the region. This in turn is used to determine the location of the pen relative to a user interface element in the page description associated with the region. The user interface element is identified, as well as a location relative to the user interface element. Location-identifying tags therefore trivially support the capture of an absolute pen path in the zone of a particular user interface element. (0198)

According to Silverbrook, in the preferred form of the invention, the tag map is associated with each page instance to allow tags on the page to be translated into locations on the page. (0209).

The Office Action indicated that paragraph 0157 of Silverbrook teaches that positional information image is arbitrarily recorded on the recording medium. Paragraph 0157 describes that while in the preferred embodiment of Silverbrook the region ID encoded in a particular tag is synonymous with the page ID of the page on which the tag appears, in other embodiments of the invention, the region to which a tag refers can be an arbitrary subregion of a page other surface. In other words, the region ID encoded in the tag need not be synonymous with the page ID on which the tag appears. This paragraph is not seen to describe the present invention's feature of arbitrarily recording positional information on a recording medium.

Assuming arguendo that the tag described in Silverbrook is equivalent to the positional information image of the present invention as the Office Action asserts, which

Applicant disagrees with as argued in this paper, there is nothing in paragraph 0157 or any other part of the Silverbrook that is seen to describe arbitrarily recording tags on a page. As stated above, paragraph 0157 describes that, while the region ID encoded in a tag is preferably synonymous with the page ID of the page on which the tag appears, the region ID could also be an arbitrary subregion of a page or other surface. The fact that the region ID encoded in a tag can be an arbitrary subregion of a page or other surface is not seen to be the same thing as arbitrarily recording the tag on a page. Nothing in this paragraph or any other paragraph of Silverbrook is seen to even remotely discuss the ability to arbitrarily record tags on a page.

As discussed above, the location of a tag within a region must be known and is done so through the use of a tag map, where each tag ID in a tagged region is mapped to a corresponding function. Given the fact that the Silverbrook invention requires that the location of a tag within a region must be known, and requires a map to do, the idea of arbitrarily recording tags on a page appears to be inconsistent with the implementation required for the Silverbrook invention to work as described.

As the above referenced sections of Silverbrook illustrate, Silverbrook discloses the structure to detect a tag, printed on a recording medium with invisible ink, by a sensor on a pen. The position on the surface of the recording medium can be determined by reading the tag using the pen. The disclosed tag comprises at least 90 bits of region ID (paragraph 0158), which itself shows the position on the recording medium. In other words, encoded information showing the position on the recording medium is already included in the tag. In order to make use of the tag to yield an absolute position of the pen within a region, a tag map mapping each tag ID in a tagged region to a corresponding location is required.

Nothing in Silverbrook is seen to describe recording a positional information image, wherein the positional information is arbitrarily recorded on a recording medium. As indicated above, each of the tags of Silverbrook contain tag ID information, which, when translated through a tag map associated with a tagged region, yields the position of the tag within the region. Since the tags of Silverbrook need to be translated, via the tag map, into locations on the recording medium, arbitrarily recording the tags would not allow for the invention of Silverbrook to work.

In the present invention, the recorded positional information image represents positional information corresponding to the position where the positional information image is recorded. As such, unlike the invention in Silverbrook, the present invention does not require a translation map. Thus, again, unlike the invention in Silverbrook, the present invention arbitrarily records positional information image on a recording medium.

Nothing in Silverbrook is seen to indicate that an individual tag or combination of tags forms or form a positional information image. In other words, there is nothing in Silverbrook to suggest that the tags form an image representing positional information on the recording medium when the tags are recorded on the recording medium.

Because Silverbrook lacks at least the above-noted features of the present invention, Applicant submits that Silverbrook fails to disclose each and every feature recited in claim 1, and that the Office Action fails to include adequate evidentiary basis to support a rejection of anticipation under 35 U.S.C. 102(b). Therefore, Applicant submits that the rejection of at least independent claim 1 is improper and respectfully requests that the rejection be withdrawn.

Furthermore, Applicant submits that claims 2 and 4-9 are allowable at least for the reason that these claims depend from allowable base claim 1 and recite additional features that further define the present invention.

In addition, amended independent claims 10, 11, 12, and 13 were rejected essentially for the same reasons as independent claim 1. Thus, independent claims 10, 11, 12, and 13 are believed allowable for the same reasons as set forth in the discussion above.

Traversal of Rejection under 35 U.S.C. 103(a)

Applicant respectfully traverses the rejection of claim 3 under 35 U.S.C. 103(a) as being unpatentable over Silverbrook in view of Tan et al. (US 6,613,403) [hereinafter "Tan"].

As discussed above, independent claim 1 to a recording apparatus for forming an image on a recording medium comprising a recording unit for performing recording by applying a recording material onto the recording medium, the recording unit recording the image and at least one of a positional information image representing positional information corresponding to the position, where the recording unit arbitrarily records the positional information image, and a control unit for controlling the recording such that the recording unit records the positional information image with a recording material capable of being detected by a predetermined detector and records the image with another recording material incapable of being detected by the detector.

Applicant respectfully submits that Silverbrook fails to disclose at least the above-described features of the present invention.

As is noted above, Silverbrook fails to disclose or even suggest these particular features of claim 1. It is further noted that the aforementioned features are not taught or suggested in Ten either. Therefore, since neither Silverbrook nor Ten discloses or suggests these aforementioned features of the present invention, no proper combination of these documents can render unpatentable the asserted combination of features recited in at least independent claim 1.

Furthermore, Applicant submits that claim 3 is allowable at least for the reason that it depends from allowable base claim 1 and recites additional features that further define the present invention.

Accordingly, Applicant respectively requests the Examiner reconsider and withdraw the rejection of claim 3 under 35 U.S.C. 103(a) as being unpatentable over Silverbrook in view of Tan, and indicate that this claim is allowable over the art of record.

CONCLUSION

Applicant respectfully submits that each and every pending claim of the present invention meets the requirements for patentability, and respectfully requests the Examiner to indicate the allowance of such claims as the Examiner's earliest convenience.

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicant's invention as recited in claims 1-13. The applied references have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein is respectfully requested and now believed to be appropriate.

Applicants' undersigned attorney may be reached at (949) 932-3329. All correspondences should be directed to the below-listed address.

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